

## REMARKS

The examiner has rejected claims 1-43 as being anticipated by Petersen (U.S. 4,657,439). The examiner asserts that Petersen discloses a series of risers coupled about the interior moonpool perimeter of the hull, the risers being laterally inserted into keel guides and tensioned by winches which allow vertical movement of the risers. Independent claims 1, 16, 23 and 36 are amended to distinguish over Peterson.

Although Peterson discloses a structure which suspends a riser (with a lower end coupled to the sea floor) from an elevation above the vessel hull and which laterally supports the riser at a point along the perimeter of the hull, U.S. Patent No. 4,657,439 issued to Peterson, fig. 5, the method taught by Petersen is to vertically suspend a riser during ordinary everyday use (usually production) by a buoyant member 27 which is not located at an elevation above the vessel hull. *Id.* at Col. 4 l. 20 – col. 8 l. 56. Petersen teaches that the disclosed structure of a riser with a lower end coupled to the sea floor being suspended from an elevation above the vessel hull and being laterally supported at a point along the perimeter of the hull (Figure 5) is used only for occasional maintenance or inspection operations which require the buoyancy member 27, which ordinarily vertically supports the riser, to be free for work thereon. *Id.* at col. 8 l. 66 – col. 9 l. 20 and col. 9 ll. 61-64. Petersen clearly discloses that only in these occasional transient maintenance situations is the riser suspended from an elevation above the hull.

On the contrary, the present application teaches that risers are suspended from an elevation above the vessel's keel, and preferably suspended from an elevation above the vessel hull, and preferably from an elevation above the waterline, and preferably suspended from the vessel deck, during the normal, steady state or ordinary use of the riser. U.S. Patent Application 10/788,771, p. 5 ll. 7-11, p. 7 ll. 9-12, and p. 8 ll. 16-20. Thus, Peterson and the present application fundamentally teach two significantly differing methods for suspending

risers. Therefore method claims 1 and 16 are amended to include the limitation of enduringly suspending the risers or umbilicals from an elevation above said hull. Likewise, apparatus claims 23 and 36 are amended to include the structural limitation of the riser or umbilical being enduringly coupled to a tensioner which is disposed at an elevation above the hull. “Enduringly,” as used herein, is intended to mean non-temporary, non-transient, persistent, or semi-permanent to indicate everyday, intended, ordinary, conventional, standard, steady-state, customary, regular, typical, or normal use, generally excluding temporary or transient maintenance, inspection, repair, overhaul, upgrade or installation periods. Independent claims 1, 16, 23, and 36 as amended herein are believed to be novel and unobvious.

Without waiver of the doctrine of equivalents, method claims 2-10, 14, and 21 are amended to rephrase structural language as functional language, and apparatus claim 26 is amended to rephrase to functional language as structural language. Claims 15, 22, 33 and 40 are cancelled. Claims 34, 35, and 41-43 are amended so that they do not depend on cancelled claims.

With regards to the examiner’s comment about claim 4, the applicant suggests that the limitation “outboard-facing surfaces” cannot be held to include surfaces within a moonpool disposed in the hull. The specification clearly indicates that outboard-facing surfaces are those surfaces facing away from the centerline or center or vertical axis of the hull and inboard-facing surfaces are those surfaces facing toward the centerline or vertical axis of the hull. *Id.* at figs. 1, 2, 6, 11, p. 2 ll. 13-14, p. 5 ll. 19-20, p. 6 ll. 5-7, p. 6. ll. 15-16, and p. 9 ll. 1-6. The specification uses the terms outboard and inboard in agreement with general dictionary terms. For example, “outboard” is defined as “being away from the center line of the hull of the ship,” and “inboard” is defined as “toward the center of a ship.” Houghton Mifflin Company, American Heritage Dictionary (2d coll. ed. 1985). In the case of vessel with a hull which is generally symmetrical about a single vertical axis and thus have a

number of center lines, such as platform vessels described in the application, the hull center is correctly indicated by the vertical axis (which generally passes through the center of mass). Holding the terms outboard and inboard to indicate facing outward or inward of a hull independent of the center of the hull is simply inconsistent with the clear use of the terms in the specification. U.S. 10/788,771 at figs. 1, 2, 6, 11, p. 2 ll. 13-14, p. 5 ll. 19-20, p. 6 ll. 5-7, p. 6 ll. 15-16, and p. 9 ll. 1-6.

In summary, claims 1-14, 16-21, 23-32, 34-39, and 41-43 are pending in the application. Applicant believes the application is in condition for allowance. Allowance of claims 1-14, 16-21, 23-32, 34-39, and 41-43 and passage to issue is requested.

Respectfully submitted,



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